

AUTOMOTIVE RELAY – ETR CAR SERIES



■ FEATURES

- European and American footprints offer different market selections.
- Washable type, flux-proofed type, unclosed type available for different customer's requirement.
- FE130 material applied to strengthen the contact in order to carry the high current load.
- Comply with RoHS, REACH and ELV regulations.

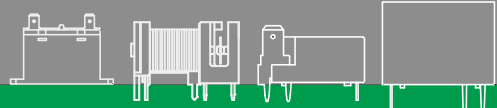
■ SPECIFICATIONS

Contact Resistance	Max. 100mΩ at initial value. @1A,6VDC
Contact Capacity	D/DM: 40A at 12VDC L/R=0 L/LM: 30A at 12VDC L/R=0
Operate Time	10m Sec. Max.
Release Time	10m Sec. Max.
Dielectric Strength	Between coil & Contact: 1200VAC at 50/60Hz for one minute Between Contacts: 750VAC at 50/60Hz for one minute
Insulation Resistance	100MΩ Min. at 500VDC

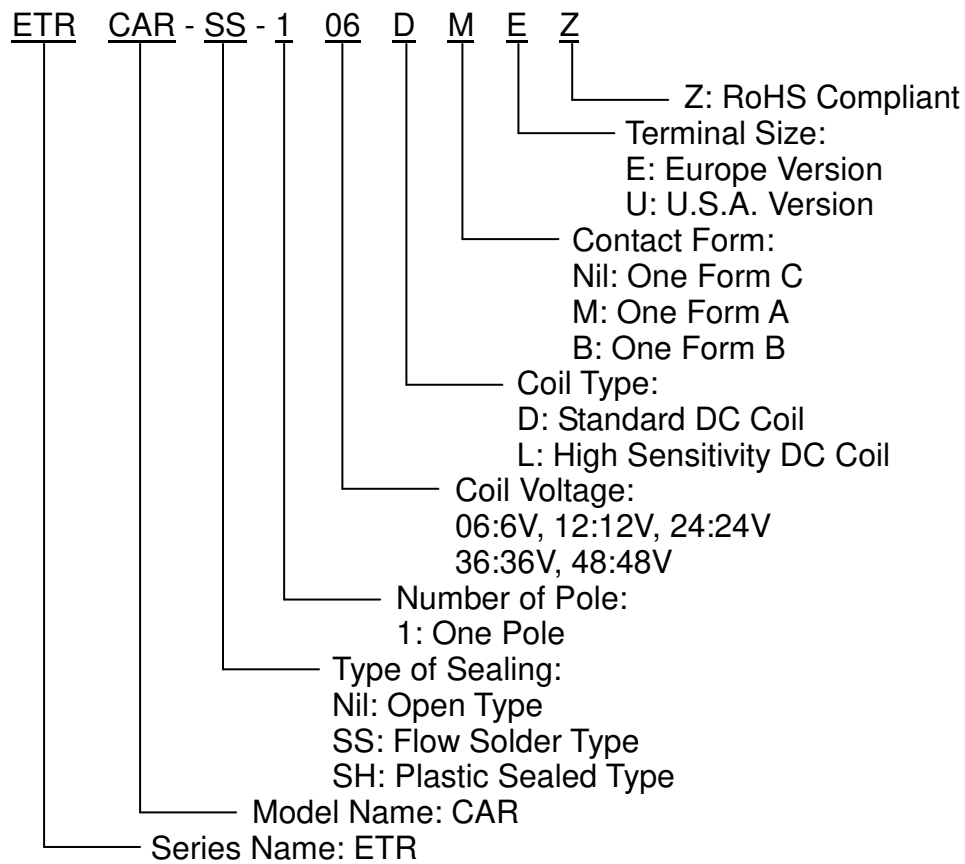
■ COIL SPECIFICATION AT 20°C

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance (Ω±10%)	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Max. Allowable Voltage (VDC)
CAR-D	6	315.7	19	Abt. 1.89	70% Max.	5% Min.	160%
	12	133.3	90	Abt. 1.59			
	24	66.2	362				
	36	44	816				
	48	33	1450				
CAR-L	6	100	60	Abt. 0.6	75% Max.	10% Min.	160%
	12	50	240				
	24	25	960				
	36	16.7	2160				
	48	12.5	3840				

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■ PART NUMBER SYSTEM

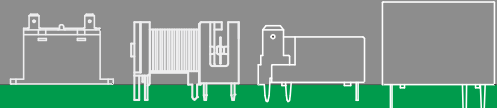


***Marking without: “ETR” & “Z”.**

ETR CAR-SH-112DE

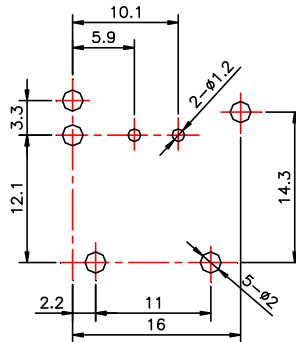
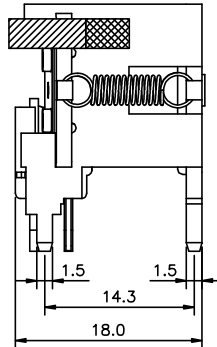
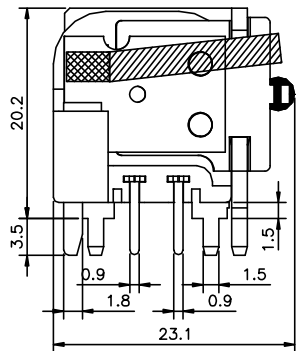


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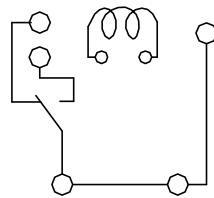


DIMENSIONS ($\leq 5\text{mm} \pm 0.2\text{mm}$, $> 5\text{mm} \pm 0.3\text{mm}$, the tolerance of PCB thru hole: $+0.1\text{mm}$)

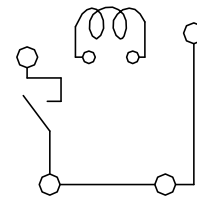
ETR CAR (Open Type–Europe)



P.C.B LAYOUT



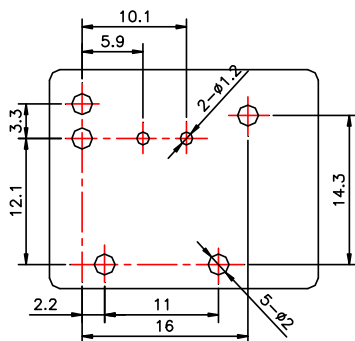
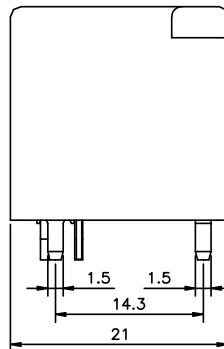
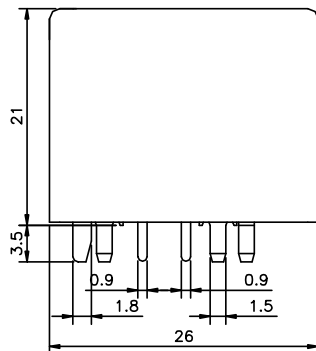
One Form C



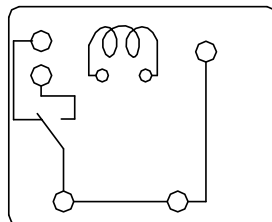
One Form A

BOTTOM VIEW

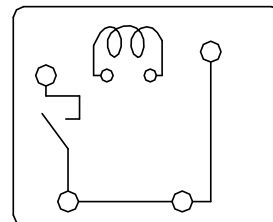
ETR CAR–SS/SH (Europe)



P.C.B LAYOUT



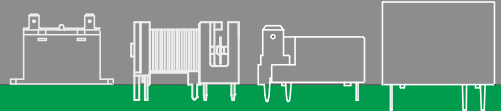
One Form C



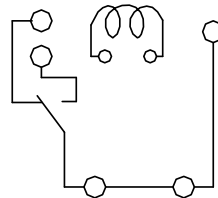
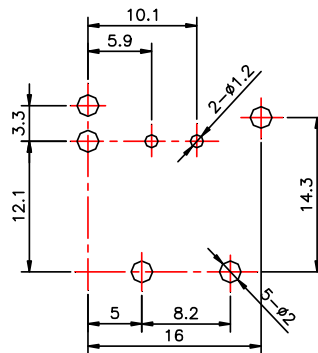
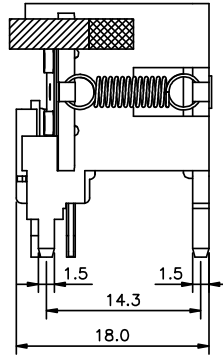
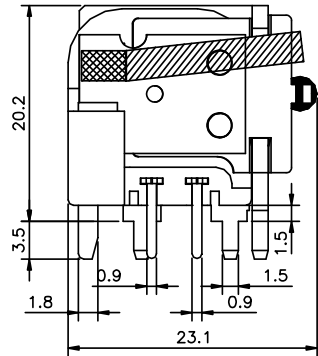
One Form A

BOTTOM VIEW

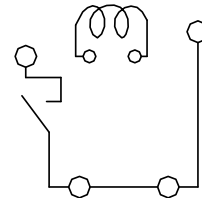
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ETR CAR (Open Type—U.S.A.)



One Form C

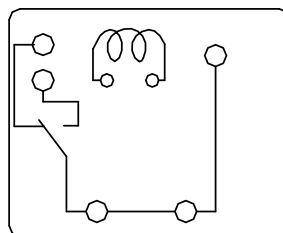
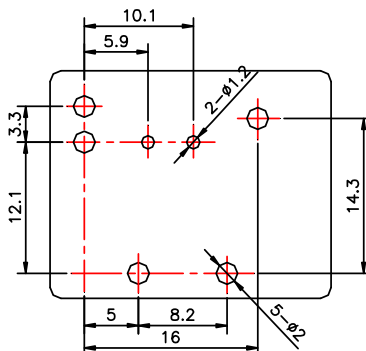
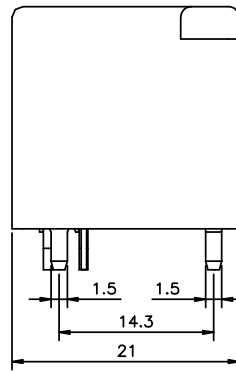
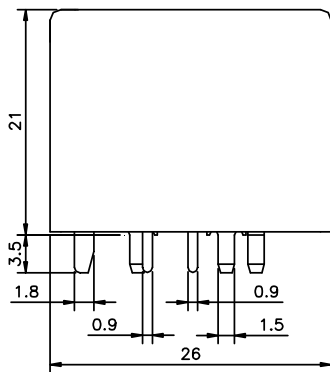


One Form A

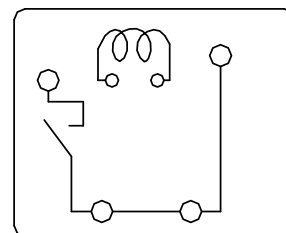
P.C.B LAYOUT

BOTTOM VIEW

ETR CAR—SS/SH (U.S.A.)



One Form C



One Form A

P.C.B LAYOUT

BOTTOM VIEW